

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Amended): A computer implemented method for scheduling processor jobs on a network of parallel machine processors or distributed system processors, comprising the steps of:

    accumulating in buffers control information communications generated by each process performed by each processor during a defined time interval, where adjacent time intervals are separated by intervening strobe intervals for a global exchange of control information; and

    performing a global exchange of the control information communications at the end of each defined time interval during the intervening strobe interval so that each processor is informed by all of the other processors of [the] a number of incoming jobs to be received by each processor in a subsequent time interval.

2. (Amended): The computer implemented method according to Claim 1, further including the steps of:

    running on each processor an ongoing process in the presence of a non-blocking communication call and storing the control information relative to the non-blocking communication in a first descriptor;

    yielding the processor to an operating system in the presence of a blocking communication call and storing the control information relative to the blocking communication in a second descriptor while suspending the ongoing process and activating a ready process from a ready queue, if any; and

    putting the ongoing process on the ready queue when the blocking communication call is completed.

3. (Amended): The computer implemented method according to Claim 1, further including the steps of:

    issuing a download command to each processor at the beginning of a strobe interval;

downloading from each processor at the command of each processor kernel at the beginning of a strobe interval ~~descriptor control packets~~ accumulated control information communications into the network for a total exchange between all processors so that each processor is informed of the number of incoming communications to be received in the succeeding time interval; and

scheduling by each processor kernel of communications accumulated prior to the strobe interval to be delivered in the succeeding time interval.

4. (Amended): The computer implemented method according to Claim 2, wherein each descriptor includes an identification of ~~the a~~ type of communication, ~~the~~ sending and receiving processors, and ~~the~~ virtual addresses of the buffers.

5. (Amended): The computer implemented method according to Claim 3, wherein each descriptor includes an identification of ~~the a~~ type of communication, ~~the~~ sending and receiving processors, and ~~the~~ virtual addresses of the buffers.

6.-7. Cancelled.